

I claim:

*Sub A1*

1. A golf ball comprising:

a core;

an inner cover layer having a Shore D hardness of 60 or more molded on said core, the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and

an outer cover layer having a Shore D hardness of 64 or less molded on said inner cover layer, said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of low flexural modulus ionomer resins and non-ionomeric thermoplastic elastomers.

2. A golf ball according to claim 1, wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches and the outer cover layer has a thickness of about 0.010 to about 0.070 inches, the golf ball having an overall diameter of 1.680 inches or more.

3. A golf ball according to claim 1 wherein the inner cover layer has a thickness of about 0.050 inches and the outer cover layer has a thickness of about 0.055 inches, the golf ball having an overall diameter of 1.680 inches or more.

4. A golf ball according to claim 1 wherein the outer layer comprises a low flexural modulus ionomer resin which includes a blend of a hard high modulus ionomer with a soft low modulus ionomer, the high modulus ionomer being a metal salt of a copolymer having from 2 to 8 carbon atoms and an unsaturated monocarboxylic acid having from 3 to 8 carbon atoms, the low modulus ionomer being a metal salt of a terpolymer of an olefin having 2 to 8 carbon atoms, acrylic acid and an unsaturated monomer of the acrylate ester class having from 1 to 21 carbon atoms.

5. A golf ball according to claim 4 wherein the outer layer composition includes 90 to 10 percent by weight of the hard high modulus ionomer resin and about 10 to 90 percent by weight of the soft low modulus ionomer resin.

6. A golf ball according to claim 4 wherein the outer layer composition includes 75 to 25 percent by weight of the hard high modulus ionomer resin and about 25 to 75 percent by weight of the soft low modulus ionomer resin.

7. A multi-layer golf ball comprising:  
a spherical core;  
an inner cover layer having a Shore D hardness of about 60 or more molded over said spherical core, said inner cover layer comprising an ionomeric resin including no more than 16% by weight

of an alpha, beta-unsaturated carboxylic acid and having a modulus of from about 15,000 to about 70,000 psi;

an outer cover layer having a Shore D hardness of about 64 or less molded over said spherical intermediate ball to form a multi-layer golf ball, the outer layer comprising a blend of i) a sodium or zinc salt of a copolymer having from 2 to 8 carbon atoms and an unsaturated monocarboxylic acid having from 3 to 8 carbon atoms, and ii) a sodium or zinc salt of a terpolymer of an olefin having 2 to 8 carbon atoms, acrylic acid and an unsaturated monomer of the acrylate ester class having from 1 to 21 carbon atoms, said outer cover layer having a modulus in a range of about 1,000 to about 30,000 psi.

8. A multi-layer golf ball comprising:

a spherical core;

an inner cover layer molded over said spherical core to form a spherical intermediate ball, said inner cover layer comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and having a modulus of from about 15,000 to about 70,000 psi;

an outer cover layer molded over said spherical intermediate ball to form a multi-layer golf ball, the outer layer comprising a non-ionomeric thermoplastic selected from the group consisting of polyester elastomer, polyester polyurethane and polyester amide, said outer cover layer having a modulus in a range of about 1,000 to about 30,000 psi.